Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Koorosh Farhoudi

GENERAL INFORMATION:

Name:	East Kentucky Power Cooperative - Hugh L. Spurlock Generating Company, LLC
Address:	P. O. Box 707, Winchester, Kentucky 40392-0707
Date application received:	April 24, 2001
SIC/Source description:	4911/ Electric Generation
AFS(10-digit) Plant ID:	21-161-0009
Application log number:	53775
Permit number:	V-97-050 (Revision 1)

APPLICATION TYPE/PERMIT ACTIVITY:

[.] Initial issuance
[X] Permit modification
__Administrative
__Minor
X Significant
[ ] Permit renewal
[ ] General permit
[ ]Conditional major
[X] Title V
[ ] Synthetic minor
[ ] Operating
[X] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance
[ ] Compliance certification signed
[ ] Compliance schedule included

APPLICABLE REQUIREMENTS LIST:

[ ] NSR
[X] PSD
[ ] Netted out of PSD/NSR
[X] NSPS
[ ] NESHAPS
[ ] Not major modification per 401 KAR 51:017, 1(2)(b) or 51:052,1(14)(b)
[ ] SIP
[ ] Other

MISCELLANEOUS:

[X] Acid rain source
[ ] Source subject to 112(r)
[ ] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[ ] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[X] Certified by responsible official
[X] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	346.8	346.8
SO_2	2,190	2,190
NOx	1,095	1,095
CO	2,190	2,190
VOC	39.4	39.4
Lead	0.069	0.069
H2SO4	54.75	54.75
Berylium	0.016	0.016
Flouride	0.51	0.51
Mercury	0.029	0.029

SOURCE PROCESS DESCRIPTION:

East Kentucky Power Cooperative, Inc. has submitted a permit application to construct and operate a coal-fired steam electric generating boiler (Emissions Unit # 8) at its existing Hugh L. Spurlock Generating Station, located in Maysville, Kentucky The proposed boiler will be a 2500 mmBTU/hr coal-fired atmospheric circulating fluidized bed (CFB) combustion unit which is operated with a total nominal capacity of 270 megawatts (MW).

EMISSION AND OPERATING CAPS DESCRIPTION:

The new coal-fired boiler will be operating year round thus 8760 hours per year.
The permittee shall install and operate the selective non catalytic reduction (SNCR) system to reduce NOx emissions to levels below those required by recent EPA proposed regulations regarding ozone, and to meet the most stringent NO_x emission limitation in the RBLC from the proposed boiler (Emission Unit #8). The NOx emission limitation, set at 0.10 lb/MM BTU based on a 30 day rolling average, is considered BACT for this type of steam generating unit.

Proper boiler design and operation is BACT for CO emissions. The CO emissions shall not exceed 0.15 lbs/MMBTU from the proposed unit based on a thirty (30) day rolling average.

The new Coal Boiler process using limestone injection and dry lime scrubber are chosen as BACT for SO_2 and acid gas control. A SO_2 emission limitation of 0.20 lb/MM BTU from the proposed unit based on a thirty (30) day rolling average is considered BACT for this type of boiler design and fuel use.

A baghouse is chosen as BACT for PM_{10} , fluorides, lead, mercury and beryllium control for the CFB boiler and for particulates from the material handling system for coal and limestone. A PM/PM_{10} emission limitation of 0.03 lb/MM BTU from the proposed boiler based on a thirty (30) day rolling average is considered BACT for this type of boiler design and fuel use.
Fluoride emissions shall not exceed 0.0000466 lbs/MMBTU from the proposed boiler. Lead emissions shall not exceed 0.0000063 lbs/MMBTU from the proposed boiler. Mercury emissions shall not exceed 0.00000265 lbs/MMBTU from the proposed boiler. Beryllium emissions shall not exceed 0.0000146 lbs/MMBTU from the proposed boiler.